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DIRECTORATE OF
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Intelligence Report

The Formation of the Soviet Strategic Rocket Forces: A Study of Interservice Rivalries

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Significant Events Surrounding the Formation of the Strategic Rocket Forces

1955	Position of Deputy Minister for New Weapons in Ministry of Defense established by this time, perhaps earlier; Marshal Nedelin named to post.
	Press articles begin to reflect strategic attack role for missile submarines against coastal targets.
1956	Development of SS-3 MRBM completed; assigned mainly to Long Range Aviation.
	First ballistic missile submarine (modified Z class) becomes operational.
1956-1957	Senior Artillery officers claim that Artillery component of Ground Forces possesses strategic missiles.
August 1957	TASS announces first launch of ICBM.
November 1957	Khrushchev claims that submarine-launched missiles can strike "all vital centers in the US."
March 1958	Khrushchev states that missiles are replacing military aircraft.
Mid-1958	Development of SS-4 MRBM completed; assigned mainly to Long Range Aviation.
December 1959	Council of Ministers issues decree forming Strategic Rocket Forces.
January 1960	Khrushchev, announcing military budget cuts, states that military aviation, along with surface ships, has lost its importance, and that almost all of military aviation is being replaced by missiles.
May 1960	Establishment of SRF publicly announced, with Marshal Nedelin as commander in chief. SRF referred to as "main branch" of the Armed Forces.
Mid-1960	G[illegible] H class ballistic missile submarines become operational.
October 1960	[illegible] killed in accident; succeeded by Marshal Moskalenko.
[illegible] 1960	First Soviet ICBM, the SS-6, becomes operational.
Early 1961	Rumors circulate that strategic and tactical missiles will be combined under Artillery.
Mid-1961	Military budget cuts restored because of Berlin crisis. Air Forces and Navy begin reasserting their claims to strategic attack responsibilities in military press.
	SS-5 IRBM becomes operational in SRF.
Early 1962	Air Forces officers begin touting advantages of air-to-surface missiles in military press.
	Moskalenko replaced by Marshal Biryuzov as head of SRF.
Mid-1962	Military press indicates SRF is beginning to share strategic attack role with Air Forces.
	SS-7 ICBM becomes operational.
February 1963	SRF commander in chief admits that missile-carrying aircraft have a strategic attack role.
April 1963	Marshal Krylov succeeds Biryuzov as SRF commander in chief.
Mid-1963	Admiral Gorshkov explicitly states that nuclear submarines are able to destroy targets "deep in enemy territory."
	New edition of Marshal Sokolovskiy's book *Military Strategy* states that strategic operations will be carried out by SRF, Long Range Aviation, and missile-carrying submarines.

The Development of the Strategic Rocket Forces

SRF Origins

At the close of World War II the Soviets controlled a number of German rocket research and testing facilities--including Peenemünde--and had access to a large number of German technicians. The results of their seizure of these physical facilities and personnel were first apparent in 1947, when a V-2 type rocket was launched from Kapustin Yar.

By 1948 all the German missile scientists in Soviet hands had been settled in various research centers, mostly in the Moscow area, and work on strategic and other missile systems probably intensified. Exploitation of the efforts of many captured German rocket engineers and technicians, along with native Soviet talents, culminated in the test launch in 1953 of the first Soviet strategic ballistic missile--an MRBM which had a range of 630 nautical miles.

Development of the SS-3, a follow-on to the first missile but with the same range, was completed in 1956, giving the Soviets the beginnings of a strategic missile capability. Development of a successor system, the longer range SS-4, was completed in 1958. Most of the launchers for these two systems were initially subordinate to Long Range Aviation, although some MRBM units may have been controlled by the Ground Forces.

One of the most prominent Soviet personalities in the early days of the USSR's military missile program was Chief Marshal of Artillery M. I. Nedelin, the first commander in chief of the Strategic Rocket Forces. [redacted]

In December 1950 Nedelin succeeded Chief Marshal of Artillery N. N. Voronov as commander of Artillery,

in the Ground Forces. Voronov, the first artillery officer to be made a chief marshal, had established his ties with missile development in the mid-Forties.

[redacted] When Nedelin became commander of Artillery he also remained head of the Chief Artillery Directorate (GAU), the organization responsible for the supply and repair of all artillery equipment. The concurrence of these responsibilities indicates that Nedelin possessed wide responsibility for all artillery activity, probably including Voronov's missile development specialty.

In 1952 Nedelin left his post as head of the Chief Artillery Directorate and succeeded Marshal of Artillery N. D. Yakovlev as Deputy Minister of Defense. Yakovlev's position had been created in 1948. His duties were obscure, but he may have headed an authority which directed Soviet missile and other advanced weapons programs.

[redacted] after 1955 [redacted] evidence [redacted] suggested the existence of an organization supporting an advanced weapons authority. Several different groups within the Ministry of Defense appear to have been connected with Nedelin's activities, although their

precise organization is not known. Their relationship to Nedelin probably was established on a formal basis through subordination to an organizational authority he chaired.

Formation of the SRF

The existence of the SRF as a separate organizational entity was gradually revealed in the first half of 1960. In January, Minister of Defense Malinovskiy made the first public reference. Addressing the Supreme Soviet, he said, "The rocket troops of our Armed Forces unquestionably are the main branch of the Armed Forces...." On 6 May 1960, Marshal Grechko, First Deputy Minister of Defense, declared that the "rocket forces have actually become the main branch of the Armed Forces." Grechko elaborated on the formation of the SRF, observing that "in accordance with a decision of the government, [the rocket troops] have been organizationally detached into a special branch of service with its own command and organizational structure...." Subsequently, Khrushchev formally announced the formation of a Chief Directorate of Rocket Forces and stated that Chief Marshal of Artillery Nedelin had been appointed commander in chief.

Personnel

The Artillery of the Ground Forces along with the Air Forces and the Navy were important sources of manpower for the Strategic Rocket Forces. The ready availability of personnel for transfer to the SRF was occasioned by the law of 15 January 1960 which required an overall reduction in military manpower. As a result of this law, new tables of organization were apparently established for the various military branches and many servicemen were to be discharged. Khrushchev indicated that not all surplus personnel would be deactivated, telling the Supreme Soviet that "Some artillerymen and airmen will be used in new formations of rocket units...." Additionally, there is evidence that some naval personnel probably were transferred to the SRF.

[redacted]

Some personnel transferred to the SRF probably manned the missile formations controlled by Long Range Aviation of the Air Forces and possibly the Artillery before the SRF took over, and were probably transferred wholesale when the missiles were resubordinated to the SRF. Other officers, however, were not necessarily connected with missile systems prior to their transfers.

The Artillery of the Ground Forces, however, appears [redacted] to have been the primary source of early SRF personnel. Although the Air Forces did transfer some personnel, former air force officers apparently were not placed in command posts in the SRF commensurate with the primary responsibility for land-based strategic missiles which Long Range Aviation previously held.

Conscription was also an important means of manning the SRF. [redacted] assignment to the SRF appears to have resulted from chance and draft quotas.

Command Changes

There have been four commanders of the SRF. The first, Marshal Nedelin, was killed in an accident in October 1960, apparently during a test firing of an SS-7 ICBM at the Tyuratam missile test range. Nedelin's successor was Marshal of the Soviet Union K. S. Moskalenko, who had been closely associated with Khrushchev since 1941.

This association and Moskalenko's military rank may have lent added prestige to the SRF. Although Moskalenko was trained as an artilleryman, his wartime experience included the command of cavalry corps, combined-arms armies, and a tank army. There is no

evidence that he was as well qualified in technical matters as Nedelin had been, and in view of his long association with Khrushchev it is likely that Moskalenko's appointment was made at least partly out of political and personal considerations.

Three hypotheses have been offered to explain Moskalenko's removal in early 1962. First, [redacted] his replacement is often attributed to health problems. [redacted] The second view holds that Moskalenko fell out of favor with Khrushchev, an interpretation reinforced by Moskalenko's subsequent reduction in status when he lost his post of Deputy Defense Minister sometime prior to Khrushchev's ouster in October 1964.

The third explanation, which is not inconsistent with a fall from grace, attributes Moskalenko's removal from command to the decision to emplace missiles in Cuba, probably taken in early May 1962. If connected with this decision, Moskalenko's removal may have come either because he opposed the plan or because his superiors did not think he was capable of handling the task. Whereas Moskalenko's technical knowledge was limited, his successor, Marshal Biryuzov, ex-commander in chief of the National Air Defense (PVO Strany), had already had eight years' service in a branch which handled missile and electronic equipment. He was an exceptionally able officer who had been in charge of the development of the air defense network since 1955.

Marshal Biryuzov is believed to have enjoyed Khrushchev's personal confidence and to have been close to Defense Minister Malinovskiy, chief of the General Staff Zakharov, and Marshal Chuykov, commander in chief of the Ground Forces. Biryuzov was a member of the "Stalingrad Group" of officers associated with Khrushchev during the battle of Stalingrad. (Khrushchev had been chief political adviser at the Stalingrad Front.)

The Cuban missile venture was carried out with speed and efficiency, much of which was probably due to the efforts of Marshal Biryuzov and of the most senior Soviet officer known to have been in Cuba at the time, Lieutenant General of Aviation P. B. Dankevich. Dankevich had served in Frontal Aviation in the Group of Soviet Forces in Germany and in the Far East. In 1961 he probably served as the first commander of a newly established SRF army equipped with MRBMs and IRBMs.

After the Cuban crisis, Dankevich was promoted to colonel general, suggesting that the SRF did not come under criticism for its role in carrying out the Cuban operation. Marshal Biryuzov's promotion in early 1963 to chief of the General Staff, replacing Marshal Zakharov, further indicates approval of the SRF's efforts in Cuba.

Marshal Nikolay Krylov, who succeeded Biryuzov as commander in chief of the SRF in 1963, was a combined-arms specialist with no previous experience in strategic weapons. Prior to his SRF assignment, however, he had served as commander of the Moscow Military District and as chief of the Moscow Garrison, two politically sensitive positions. During the battles for Stalingrad Krylov had personal contact with Khrushchev and also with several important military leaders, notably Malinovskiy and Zakharov.

Marshal Krylov took over command of the SRF at a time when the Air Forces and the Navy were reasserting claims to a strategic offensive mission for themselves. Krylov apparently fought consistently to maintain the primacy of the SRF in Soviet strategic offensive operations. (He died in February 1972, and his successor had not yet been identified when this Report was written.)

Although the SRF remained intact after Varentsov's challenge, there were some signs that Moskalenko had to pay a price. In *Izvestiya* in February 1962 he referred to the SRF as a "new branch of the Armed Forces" and as being the "basic means in the hands of the Supreme Command for the achievement of the main objectives of war." Moskalenko also joined other military writers in calling for joint responsibility of all forces in a future war: "Although...the decisive role will belong to the rocket and nuclear weapons, the final victory over the aggressor can be achieved only as a result of the coordinated action of all branches of the Armed Forces."

Part of the price may have involved the budget. In July 1961 the manpower and budget cuts in the other branches had been restored. After Varentsov's challenge, Moskalenko stated, "Now we have no special need to increase our Rocket Forces and armament reserves. In the future a process not of stockpiling, but of natural renewal and perfecting of weapons, will go on...." Two months later Malinovskiy suggested that because victory in war could only be achieved by combined forces, all branches "must therefore receive corresponding development." By late November 1962 Malinovskiy was saying that the military had achieved a "harmonious system of views on all problems in the organization of the armed defense of the Soviet state."

The preeminent position of the SRF in the strategic offensive field began to erode after the cancellation of the budget and manpower cuts in mid-1961. This victory, and perhaps also Varentsov's endeavor, may have stimulated both the Air Forces and the Navy to reassert a strategic offensive responsibility for themselves. In July 1961, the Navy began to reiterate its claim to an attack mission against naval bases and installations in coastal areas. During the same month the Air Forces began to suggest a strategic role for aircraft carrying air-to-surface missiles.

By mid-1962, open Soviet sources indicated the SRF command was beginning to share its strategic attack responsibilities with the Air Forces. Chapter VI of *Military Strategy* (1962 edition), prepared